



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,503	08/24/2006	Norikazu Sugaya	2006_1372A	1096
513 7590 03/04/2010 WENDEROTH, LIND & PONACK, L.L.P. 1030 15th Street, N.W., Suite 400 East Washington, DC 20005-1503				
EXAMINER				
FLETCHER III, WILLIAM P				
ART UNIT		PAPER NUMBER		
1792				
NOTIFICATION DATE		DELIVERY MODE		
03/04/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com  
coa@wenderoth.com

### Office Action Summary

**Application No.**

10/590,503

**Applicant(s)**

SUGAYA ET AL.

**Examiner**

William P. Fletcher III

**Art Unit**

1792

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 10 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 24 Aug 2006 & 8 Nov 2006

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election of claims 1-9 in the reply filed on 10 November 2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 10 and 11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10 November 2009.

***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

4. The IDSs filed 24 August 2006 and 8 November 2006 have been considered.

***Drawings***

5. The drawings were received on 24 August 2006. These drawings are acceptable for examination.

***Specification***

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the specification.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the *claims* are directed.

The following title is suggested: METHOD FOR PREVENTING ELUTION OF NICKEL FROM WETTED INSTRUMENT OF COPPER ALLOY[],] BY FORMATION OF

~~A PROTECTIVE FILM FORMATION AGENT FOR PREVENTING ELUTION OF  
NICKEL AND DETERGENT FOR PREVENTING ELUTION OF NICKEL.~~

***Claim Objections***

8. Claims 2-9 are objected to because of the following informalities:
- A. For consistency, the Examiner suggests that the preamble of these claims reads: *A method for preventing elution of nickel from a wetted instrument made of copper alloy and plated with a material containing nickel....*
- B. In claim 6, the phrase *per se* is redundant. The claim should read: *...thereby suppressing via the protective film dissolution of the nickel per-se by wetting.*

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
10. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- A. Claim 1
- i. The terms *wetted instrument/wetted surface* are indefinite since it is unclear whether the instrument/surface must actually be wet. The components listed at [0002] of the instant Specification typically come into contact with water, but the disclosure does not appear to specifically

require that the components actually be wet when performing the method recited in the claims. As such, *wetted instrument/wetted surface* appear to be misnomers.

ii. The phrase *applying a protective film formation agent to a surface of a nickel coat that wraps around and adheres to at least a wetted surface of the wetted instrument* is indefinite since it is unclear whether it is the protective film, the nickel coat, or both, that wraps around and adheres to the surface. For examination purposes, the Examiner has interpreted this phrase as referring to the Ni coat, as suggested by [0007] of the instant specification.

B. Claim 2

i. The phrase *including* renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

C. Claim 3

i. The phrase *appropriate* is indefinite since it is unclear what precisely constitutes an appropriate composite or just how the appropriateness of the composite is determined. Consequently, the metes and bounds of the claim are impossible to determine.

ii. The phrase *including* renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

D. Claim 4

- i. This claim is rejected by virtue of its incorporation of the indefinite subject matter identified in claim 1.

E. Claim 5

- i. The phrase *using* is indefinite since the precise nature and extent of the use is not clear and the metes and bounds of the claim are impossible to determine.

F. Claims 6-8

- i. These claims are rejected by virtue of its incorporation of the indefinite subject matter identified in claim 1.

G. Claim 9

- i. The term *the...lead segregated on the surface layer of the wetted section* lacks antecedent basis.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-6, are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 2002-180267 A in view of Applicant's admitted prior art.

A. Claims 1 & 2

i. This reference teaches a process for the treatment of a Ni-plated, Cu alloy waterworks appliance, which anticipates the recited *wetted instrument* as exemplified at [0002] of the instant Specification (see above). The applicant is immersed in a solution of benzotriazole (BTA) and organic acid, thereby forming a protective film [0007, 0008, and 0025].

ii. While this reference does not expressly teach that Ni elution is suppressed, since the reference teaches all of the *claimed* process steps and materials, it is the Examiner's position that the film formed suppresses elution of Ni, absent evidence to the contrary.

iii. This reference does not expressly state that the Ni film *wraps around and adheres to at least a wetted surface of the wetted instrument*. Applicant's admitted prior art teaches that providing such a Ni film is known in the art [0007]. Consequently, it would have been obvious to one skilled in the art to provide the Ni film in such a known fashion motivated



by the desire and expectation of successfully providing a coating that is aesthetically pleasing and resistant to corrosion and abrasion.

B. Claim 3

i. This reference does not expressly teach the formation of more than one layer. Nevertheless, it is the Examiner's position that multiple applications of a coating material in order to build up a film of a desired thickness is well known in the art and would have been readily obvious to one skilled in the art.

ii. Further, this reference does not expressly teach that the organic acid is a straight-chain fatty acid. Nevertheless, the reference is not limited to any one type of acid and it is readily apparent that any acid resulting in the desired acidity [0023-0025] may advantageously be used. Consequently, it would have been obvious to one skilled in the art to use, as the organic acid, and suitable organic acid, including a straight-chain fatty acid, absent evidence to the contrary.

C. Claim 4

i. As noted above, multiple applications of a coating material in order to build up a film of a desired thickness is well known in the art and would have been readily obvious to one skilled in the art. Since the claim does not require that the first and second application of the protected film be compositionally different, the above-described application of multiple layers satisfies this limitation.

ii. Further, as noted above, since the reference teaches all of the *claimed* process steps and materials, it is the Examiner's position that the film formed suppresses the elution of Ni due to bimetallic corrosion, absent evidence to the contrary.

D. Claim 5

i. JP '267 does not expressly recite that the Ni coat has pinholes and that the protective film insulates the underlying Cu alloy and Ni.

ii. Applicant's admitted prior art further teaches that Ni plated coatings have pinholes.

iii. Since conventionally formed Ni coatings have pinholes, there is a reasonable expectation that the Ni coating of JP '267 has such pinholes. Further, since the reference teaches all of the *claimed* process steps and materials, it is the Examiner's position that the film formed insulates the underlying Cu alloy and Ni, absent evidence to the contrary.

E. Claim 6

i. As noted above, since the reference teaches all of the *claimed* process steps and materials, it is the Examiner's position that the film formed suppresses dissolution of the Ni by wetting, absent evidence to the contrary.

14. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-180267 A1 in view of Applicant's admitted prior art, as applied to claim 1 above, further in view of EP 0 892 084 A1.

- A. While JP '267 teaches that the Cu alloy also contains Pb, this reference does not expressly teach the limitations of the claims.
- B. EP '084 teaches contacting a Pb-containing Cu alloy waterworks device with an acidic detergent to prevent the elution of Pb from the device [abstract; 2:1-4 & 37-40 and 9:14-16]. EP '084 teaches the acidic detergent contains HNO<sub>3</sub> and HCl [2:37-47; 5:24-42; and 6:Table 2]. At paragraphs [0007+] of the instant Specification, Applicant's disclose that the mere presence of a Ni coat may result in the elution of Ni in water. Consequently, it is the Examiner's position that a Ni salt residue is inherently formed as a result of the Ni plating process and said Ni salt will be removed by the acidic detergent, which is an aqueous solution.
- C. It would have been obvious to one skilled in the art to modify the process of JP '267 so as to contact the waterworks appliance with the acidic solution of EP '084 motivated by the desire and expectation of additionally suppressing Pb elution.

### ***Double Patenting***

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 1, 2, 4, 6, 7, and 9, are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 8, and 9, of U.S. Patent No. 7,368,019 B2 in view of Applicant's admitted prior art.

A. Patented claim 1 teaches all of the limitations of instant claims 1 and 7 except the claimed wrapping around of the Ni film. As noted above, Applicant's admitted prior art teaches that this is known and it would have been readily obvious to one skilled in the art.

B. With respect to instant claim 2, the patented claims do not teach BTA, but this compound is disclosed as an exemplary embodiment [32:19]. As such it would have been readily obvious to use such an exemplary embodiment motivated by the desire and expectation of achieving the desired results of the patented invention.

C. With respect to instant claim 4, as noted above, multiple applications of a coating material in order to build up a film of a desired thickness is well known in the art and would have been readily obvious to one skilled in the art. Since the claim does not require that the first and second application of the protected film be compositionally different, the above-described application of multiple layers satisfies this limitation. Further, as noted above, since the patented claim teaches

all of the instantly *claimed* process steps and materials, it is the Examiner's position that the film formed suppresses the elution of Ni due to bimetallic corrosion, absent evidence to the contrary.

D. With respect to instant claims 6 and 9, see patented claims 8 and 9, respectively.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Sunday, 5:00 AM - 12:00 PM and Monday through Friday, 5:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Phillip Fletcher III/  
Primary Examiner, Art Unit 1792

25 February 2010